2016

UAV1 New DA for 2016-17

Fanshawe College

CURRICULUM MODIFICATION REQUEST FORM

COURSE OR PROGRAM CURRICULUM "RATIONALE FOR CHANGE"

Program Requiring Changes

Program Title: Unmanned Vehicle Operations		
Program Number: UAV1	Date Submitted: Click here to enter a date. ~~date.~~ April 4 2016	
Dean responsible for program: Vertha Coligan	Chair: Stephen Patterson	
Credential Provided: ☐ Declaration of Academic Achievement ☒ Local Certificate ☐ Ontario College Certificate ☐ Diploma ☐ Advanced Diploma ☐ Grad Certificate ☐ Degree ☐ Apprenticeship		
Program Intakes: ☒ F ☒ W ☒ S Other:	Catalogue Year(s) Impacted:	
Residency Requirement: ☒ Met or ☐ Not Met	Date of Last Program Review: Click here to enter a date. N/A - New	
I have read the reasons for the change and...		*Signature and date*
Dean of Faculty (responsible for program):	☒ Approve ☐ Do Not Approve	V. Coligan April 5/16
Dean of Faculty (impacted by change):	☐ Approve ☐ Do Not Approve	
Dean of Faculty (impacted by change):	☐ Approve ☐ Do Not Approve	
Associate Vice President Academic (required for major changes and late DAs):	☐ Approve ☐ Do Not Approve	
Director, Centre for Academic Excellence:	☒ Supports ☐ Does Not Support	Judy Gedes april 6/16
Office of the Registrar:	☐ Supports ☐ Does Not Support	

Degree Audit Report

Catalog: 2016/2017

Program: UAV1 **Name:** Unmanned Aerial Vehicle Operations

Department: AVI - Aviation Technology
Academic Level: CE
CCD: 7 - 2AcadSem/600-700 hrs
Credential: Certificate

Grade Scheme: LG2
Major: UAV1 - Unmanned Aerial Vehicle **Div:** AVI - School of Aviation Technology
Co-Op Indicator: N/A

Academic Program Requirement

Total Credits: **Residency Reqmt:**
GPA Requirement: 2.000 **Residency Reqmt GPA:**
Minimum Grade:

Academic Requirement:

Major:
Grade Scheme:
Minimum GPA:
Minimum Grade:

Approved By Chair/Manager: AVI Apr 5/2016 Department and Date:

Approved by Dean: Apr 5/16 Date:

General Education Approved By(as appropriate): Date:

Please see attached inaugural Degree Audit for UAV1 fall 2016.

UAV1 20167 Catalogue DA

4 Core Courses, School of Aviation

1. **MECH-1109**
   Transport Canada Operation Compliance, 45 hrs.
2. **MECH-1110**
   UAV Maintenance and Payload Management, 45 hrs.
3. **MECH-1112**
   Avionics, Remote Sensing and Wireless Theory, 60 hrs.
4. **MECH-1111**
   Special Projects: In-Field Industry Application, 45 hrs.

Elective Stream 1: School of Design

1. **METH-1039** Geographical Information Systems 1 60 hrs
2. **METH-3026** Remote Sensing & Image Processing 45 hrs

Elective Stream 2: Photography

3. **PHOT-1062** Practical Photography 1 45 hrs
4. **PHOT-3022** Videography for Photographers 60 hrs

Elective Stream 3: Public Safety

5. **PFLP-3016** Public Safety In the 21st Century
6. **SRTY-1009** Emergency Management

April 6/16

H. PROGRAM CURRICULUM (APPENDIX C)

Semester	Course Code/ Course Title *(As indicated in Appendix A)*	General Education Course *(indicate with an X)*	Total Course Hours	Course Description
1	AVIA-XXXX Transport Canada UAV Operation Compliance		45	This course introduces students to Transport Canada regulatory requirements of Unmanned Aerial Vehicles (UAVs) and remotely piloted aerial systems and their safe operation and management. Students will study UAV operation and flight theory and engage in comprehensive simulated and hands-on UAV operation activities.
1	AVIA-XXXX UAV Maintenance and Payload Management		45	This course introduces students to the fundamentals of UAV maintenance including composites, wiring, gas and electric motor operation, and trouble-shooting techniques. Particular attention is paid to wireless data link theory, multimedia hardware configurations and capabilities, and data capture, storage and transfer.
1	AVIA-XXXX Avionics, Remote Sensing, and Wireless Theory		60	This course introduces students to the fundamentals of avionics and state-of-the-art remote sensing technologies, their theory and practice. Specific attention is paid to technical specifications of industry-used in-field UAV hardware and software.
1	INDS-XXXX Special Projects: In-Field Industry Application		45	This course provides students with theoretical and practical experience planning, conducting, monitoring, and reporting on industry-specific UAV missions with a focus on applied research and data capture in professional contexts. In-field and self-directed learning is supported with team-based real-world industry missions facilitated by the College.
Elective Stream 1: Geographic Information Systems				
1	METH-XXXX GIS and Spatial Data Fundamentals		45	This course provides students with a strong understanding of the vast field of Geographical Information Systems including hardware and software components. With a particular focus of the retrieval and analysis of GIS data, students are introduced to analysis techniques and decision-making matrices used in the commercial and scientific use of UAV technologies.
1	METH-XXXX Spatial Data and Image Analysis		60	This course covers intermediate and advanced spatial data concepts and builds on the student's knowledge of basic GIS concepts and data analysis skills. Introducing students to meta data and data visualization, this course allows students the opportunity to engage in advanced topics in image and data analysis, refining their decision-

				making and reporting skills to professional standards.
Elective Stream 2: Multimedia				
1	PHOT-XXXX Aerial Photography and Video Techniques		45	This course provides students with an introduction to film and photography to ensure the most appropriate capture of visual imagery available to multi-mission aerial photography. Students acquire the skills to engage high-quality filming and survey work by way of a comprehensive course of study in multimedia theory and capture.
1	MMED-XXXX Multimedia Image Processing		60	This course provides students with an excellent orientation to photo and video editing of the nature required for film-making and documentary techniques as related to imagery captured by UAV technologies. The specific focus of this course is multimedia editing for the purpose of manipulating and revising raw imagery capture by UAV camera technologies. The aim of the course is to introduce students to intermediate and advanced-level editing techniques, preparing them to engage in complex multimedia projects using aerial-captured material.

Add additional rows as required to complete the curriculum chart.